

SUPPORT FOR THE AMENDMENTS

This Amendment amends Claims 43-45 and 47-59. Support for the amendments is found in the specification and claims as originally filed. It is believed that no new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 43-59 will be pending in this application. Claims 43, 44, 45 and 47 are independent.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention provides a material for purification of a semiconductor polishing slurry.

Claims 43-59 are rejected under 35 U.S.C. §103(a) over EP 1179627 ("Nambu").

The Office Action asserts:

Nambu discloses a material for purification of industrial wastewater which uses a metal chelate forming fibrous resin, which may be of natural fiber, such as cellulose, and can be embodied as a sheet, mat, or non-woven fabric. The use of such a fiber in removing metal ions from solution in a semiconductor polishing slurry would have been an obvious application to those of ordinary skill in the wastewater purification art, since used polishing slurry is an industrial wastewater, and is known to contain traces of unwanted metal contaminants which require removal to prevent wafer contamination. Office Action at page 3, lines 5-11.

In general in a semiconductor polishing process, the polishing slurry is required to stabilize itself through the whole process. In other words, "it is desirable to control so that the pH does not change through the purification process". Specification at [0035]. This is because the polishing slurry is used repeatedly by purification. In general, this requirement is

not applied to the general wastewater purification art, but mainly applied to the semiconductor polishing process art.

According to the amended claims, the "material for purification of semiconductor polishing slurry" is used in a process for purification of a semiconductor polishing slurry, and the process is "used in a semiconductor polishing process". Therefore, the "material" including "the functional group being configured to maintain a main constituent" can be a desirable material to purify the polishing slurry. Nambu does not suggest this feature, but teaches general wastewater purification art.

The combination in independent Claims 43-45 and 47 of a "hydroxyl group" and a "functional group capable of ion-exchanging or capable of forming a metal chelate" enables the "material for purification of a semiconductor polishing slurry" to absorb the impurity metals in various forms.

Specifically, the impurity metals present in the semiconductor polishing slurry described above might be present in various forms. For example, if the metals are present as ions, an ion-exchange group or a chelate functional group fixed onto a polymer substrate can adsorb by exchanging the ions or forming a chelate with the relevant metal ions. If the metals are present as a colloid or hydroxide, a hydroxyl group present in the polymer substrate is capable of physically adsorbing a hydroxyl group coordinated or bonded to the metals as the relevant metal colloid or metal hydroxide. Specification at [0016].

Nambu is silent about this feature.

Because Nambu fails to suggest all the limitations of independent Claims 43-45 and 47, the rejection under 35 U.S.C. §103(a) over Nambu"), should be withdrawn.

Claims 48-49 are rejected under 35 U.S.C. §112, second paragraph. To obviate the rejection, the term "and/or" is deleted from Claims 48-49.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

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